Computing and Advanced Technology to Improve the Lives of People with Disabilities and Older Adults

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Empowering People w/ Disabilities

• Ensure human rights for people w/disabilities.
• Provide education and career opportunities for people w/disabilities.
• Create a brighter future.
Empowerment through Wireless Computing Technologies

- There may be as many as 100 billion connected IoT devices and a global economic impact of more than $11 trillion by 2025
- Wireless technologies, especially the emerging Internet of Things (IoT), hold great potential to further improve inclusion of PwD
- Traditionally, PwDs have been required to adapt to their physical environments, learn to use a new assistive device, and seek supports from families, friends, or relevant professionals.
• Computing technology makes things possible for people with disabilities.

• Promote community participation and empowerment to include health, employment, school and family

• Become an extension of the user.
Promote Reintegration

Coaching Healthy Behavior

Smartphone-based Virtual Seating Coach
The IoT Enables Informed Interaction between PwD, Physical Environments, and Their Support Network

- Providers can deliver personalized and relevant information to users anywhere and at a time when it is most effective, and tailor their responses to meet user needs.
- Manufacturers can improve their products by studying how they are used under everyday conditions and obtain previously unavailable insights into their products’ performance and use.
- PwD are a highly heterogeneous group with each individual having his or her unique needs, abilities, and resources.
- Through IoT, it is possible to create and provide relevant and personalized services to PwD, potentially driving better user experiences and outcomes.
- “Connected devices, homes, workplaces, communities and “around me technologies”.”